

**MARYLAND HISTORICAL TRUST
DETERMINATION OF ELIGIBILITY FORM**

NR Eligible: yes ☐ no ☒

Property Name: SHA Bridge No. 1200800, MD 7 over Gray's Run Inventory Number: HA-1861
Address: Old Philadelphia Road (MD 7) Historic district: ☐ yes ☒ no
City: Aberdeen Zip Code: 21001 County: Harford
USGS Quadrangle(s): Aberdeen
Property Owner: State Highway Administration Tax Account ID Number: _____
Tax Map Parcel Number(s): _____ Tax Map Number: _____
Project: Reevaluation of Highway Bridges Statewide Agency: FHWA/MD SHA
Agency Prepared By: KCI Technologies, Inc.
Preparer's Name: Alison Ross Date Prepared: 10/16/2009
Documentation is presented in: Project Review and Compliance Files
Preparer's Eligibility Recommendation: ☐ Eligibility recommended ☒ Eligibility not recommended
Criteria: ☐ A ☐ B ☐ C ☐ D Considerations: ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G
Complete if the property is a contributing or non-contributing resource to a NR district/property
Name of the District/Property: _____
Inventory Number: _____ Eligible: ☐ yes ☐ no Listed: ☐ yes ☐ no
Site visit by MHT Staff ☐ yes ☒ no Name: _____ Date: _____

Description of Property and Justification: *(Please attach map and photo)*

Bridge No. 1200800 (MIHP No. HA-1861) is a 2-lane, single-span, concrete-beam bridge carrying MD 7 (Old Philadelphia Road) over Gray's Run in Harford County, Maryland. Constructed in 1925, the bridge is comprised of a concrete slab integral with the concrete beams, plain concrete abutments and wingwalls, and incised concrete parapets that are integral to the bridge. It is located between I-95 and US 40. The 2006 Average Daily Traffic (ADT) count is 12,730, and the 2026 future ADT is 14,678. The function class is Urban Minor Arterial.

Background

The first evaluation of SHA Bridge No. 1200800 was completed in 1995, for which a Maryland Inventory of Historic Properties (MIHP) form was completed. The Interagency Historic Highway Bridge Inventory Committee (HHBIC) considered the MIHP form in 1996 and subsequently determined Bridge No. 1200800 to be eligible for listing in the National Register of Historic Places (NRHP). The Maryland Historical Trust (MHT) concurred with the determination in 2001.

MARYLAND HISTORICAL TRUST REVIEW

Eligibility recommended ☐ Eligibility not recommended ☒
Criteria: ☐ A ☐ B ☐ C ☐ D Considerations: ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G

MHT Comments:

lost integrity

Jim O'Leary
Reviewer, Office of Preservation Services

[Signature]
Reviewer, National Register Program

5/14/10

Date

5/18/10

Date

20100119Z

SHA Bridge No. 1200800 was re-evaluated for NRHP eligibility as part of the 2009 statewide re-evaluation of the eligible bridges in SHA's Historic Highway Bridge Inventory. SHA requested that KCI conduct research to gather information and provide additional analysis of each of the bridge's integrity and significance to supplement the original NRHP evaluation. As part of the re-evaluation, a KCI historian conducted research at SHA's Office of Structures (OOS) to gather additional information on the bridge including alterations and repairs that have been made to the structure between the years of 1995 to 1998. The following document were reviewed by the KCI architectural historian: inspection files, repair history files, bridge plans, the Bridge Inspection and Remedial Engineering (BIRE) Worklist, and the Structure Inventory and Appraisal (SI&A) reports. A KCI architectural historian visited the bridge to examine and document current conditions with field notes, digital photography, and black and white photography. In order to re-evaluate the bridge's historic significance and NRHP eligibility, the following documents were used: the original MIHP form, Historic Highway Bridges in Maryland: 1631-1960: Historic Context Report and A Context for Common Historic Bridge Types, NCHRP Project 25-25, Task 15.

Evaluation and Justification

During the re-evaluation, the research into SHA records has shown that Bridge No. 1200800 is in fair condition, with a Bridge Sufficiency Rating (BSR) of 42.0. The condition ratings are currently 5 for the deck, superstructure, and substructure.

The superstructure exhibits areas of deterioration. Field survey conducted in 2009 showed that large patches on the southern fasci are visible where repairs were made in 1989 (as shown on drawings dated May 1989). Field survey also revealed cracks and efflorescence running the length of the underside of the deck. Both parapet walls also show areas of deterioration. The area at the base of the expansion joints on both the northern and southern walls is spalled on top of the piers. The northern wall has spalling on the interior curb as well. Inspection reports state that the southern parapet wall has been recast, giving the parapet a wavy appearance (date unknown). The BIRE Worklist states that a fracture in the parapet was repaired in 1996. Field survey shows that the inside of the southern parapet wall has large areas of spall. A guardrail was installed across the full-length of the interior of both parapet walls, obscuring the parapet panels' design. A large area with heavily rusted exposed rebar is on the exterior of the southeastern face of the southern parapet.

Field survey by the historian saw that repairs were made to the northeastern wingwall. Sections of the concrete were removed and replaced with new material. The repair was made in 1989, according to drawings dated May 1989. The northwestern wing has a horizontal crack near its top, with a failed area of patching adjacent to it, and the southeastern wing has a fractured triangular section at its top, which was patched in the past (date unknown) and is beginning to spall.

A close examination reveals that the bridge has lost integrity of materials, design, and workmanship because of deterioration and repairs to the CDEs. The integrity of the setting, location, and association of the bridge has not changed and remain good. The integrity of the overall feeling of the bridge is poor due to the deteriorated condition of the structure.

The MIHP form stated that the bridge is not a significant example of its type and that the CDEs have either been repaired or are deteriorated. The 2009 re-evaluation agrees with the MIHP form, and recommends that SHA Bridge No. 1200800 is not eligible for listing in the NRHP under Criterion C. The bridge was probably constructed using 1924 standardized plans and is not a significant example of a concrete beam bridge of its time period. It was constructed along the Old Philadelphia Road to help meet the transportation demands of its time. The T-beam design is neither unique nor exceptional, and there are many other examples in the state. According to Historic Highway Bridges in Maryland: 1631-1960: Historic Context Report, the reinforced concrete, T-beam design and construction used for Bridge No. 1200800 was used widely in standardized bridges across the United States by 1920. In the 1920s and 1930s, the T-beam bridge became the most frequently designed structure on Maryland's highways because

MARYLAND HISTORICAL TRUST REVIEW

Eligibility recommended _____ Eligibility not recommended _____

Criteria: ___ A ___ B ___ C ___ D Considerations: ___ A ___ B ___ C ___ D ___ E ___ F ___ G

MHT Comments:

Reviewer, Office of Preservation Services

Date

Reviewer, National Register Program

Date

NR-ELIGIBILITY REVIEW FORM

HA-1861

SHA Bridge No. 1200800, MD 7 over Gray's Run

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the design allowed the engineers to design many similar structures for different water crossings around the state. As a result, it is a common and ubiquitous resource that does not embody distinctive characteristics, represent the work of a master architect or engineer, or possess high artistic values. The bridge is not associated with any known event of local, regional, or national significance (Criterion A) or with any known person of local, regional, or national significance (Criterion B). Criterion D was not evaluated as part of the historic standing structures studies for this project.

MARYLAND HISTORICAL TRUST REVIEW

Eligibility recommended _____

Eligibility not recommended _____

Criteria: ___ A ___ B ___ C ___ D Considerations: ___ A ___ B ___ C ___ D ___ E ___ F ___ G

MHT Comments:

Reviewer, Office of Preservation Services_____
Date_____
Reviewer, National Register Program_____
Date

MIHP No. HA-1861
SHA Bridge No. 1200800
MD 7 over Gray's Run
Harford, Maryland

Photograph Log

Image File Name	Description of View
HA-1861_2009-01-15_01.tif	Eastern elevation, facing west
HA-1861_2009-01-15_02.tif	Western elevation, facing northeast
HA-1861_2009-01-15_03.tif	Interior of western parapet, facing northwest
HA-1861_2009-01-15_04.tif	Close-up of eastern fascia, facing west
HA-1861_2009-01-15_05.tif	Close-up of eastern fascia and southeastern wingwall, facing southwest

Printed on Epson Premium Photo Paper Glossy with Epson UltraChrome Black Ink

Saved on Verbatim UltraLife Archival Grade DVD-R, AZO recording dye



MIHP HA-1861

SHA Bridge No. 1200800, MD 7 over
Grays Run

Harford Co., MD.

James Skocik

01/15/09

MD SHPD

E elev. facing W

#1 of 5



MHP HA-1861

SHA Bridge No. 1200800, MD 7 over
Gray's Run

Harford Co., MD

James Skocik

01/15/2009

W elev. facing NTE

2 of 5



MIHP HA-1861

SHA Bridge No. 200800, MD 7 over
Gray's Run

Harford Co, MD

James Skocik

01/15/2009

Interior of W parapet, facing NW
3 of 5



MTHP HA-1861

SHA Bridge No. 1200800, MD7 over
Grays Run

Hanford Cr., MD.

James Skocik

01/15/2009

Close-up of E. fascia, facing W.
#4 of 5



MIHP HA-1861

SHA Bridge No. 1200800, MD 7
Over Grays Run

Harford Co., MD

James Skocik

01/15/2009

Close-up of E fascia and STE
Wing wall, facing SW

#5 of 5

Maryland Historical Trust

Maryland Inventory of Historic Properties number:

~~HA-1862~~

HA-1861

Name:

12008/ MD 70 OVER GRAY'S PENN (OLD PHILADELPHIA CO.)

The bridge referenced herein was inventoried by the Maryland State Highway Administration as part of the Historic Bridge Inventory, and SHA provided the Trust with eligibility determinations in February 2001. The Trust accepted the Historic Bridge Inventory on April 3, 2001. The bridge received the following determination of eligibility.

MARYLAND HISTORICAL TRUST

Eligibility Recommended ☒ X

Eligibility Not Recommended ☐

Criteria: ☐ A ☐ B ☐ C ☐ D Considerations: ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ None

Comments:

Reviewer, OPS: Anne E. Bruder

Date: 3 April 2001

Reviewer, NR Program: Peter E. Kurtze

Date: 3 April 2001

MARYLAND INVENTORY OF HISTORIC PROPERTIES
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION
MARYLAND HISTORICAL TRUST

MHT NO. HA-1862NAME AND SHA NO.: 12008LOCATIONRoad Name and Number: MD 7 (Old Philadelphia Road) over Gray's RunCity/Town: Aberdeen ☒ vicinityCounty: Harford CountyOwnership: ☒ State ☐ County ☐ Municipal ☐ OtherBridge projects over: ☐ Road ☐ Railway ☒ Water ☐ LandIs bridge located within designated district?: ☐ yes ☒ no☐ NR listed district ☐ NR determined eligible district☐ locally designated ☐ otherName of District ☐BRIDGE TYPE☐ Timber Bridge☐ Beam Bridge ☐ Truss-Covered ☐ Trestle ☐ Timber-and-Concrete☐ Stone Arch Bridge☐ Metal Truss Bridge☐ Moveable Bridge☐ Swing ☐ Bascule Single Leaf ☐ Bascule Multiple Leaf☐ Vertical Lift ☐ Retractable ☐ Pontoon☐ Metal Girder☐ Rolled Girder ☐ Rolled Girder Concrete Encased☐ Plate Girder ☐ Plate Girder Concrete Encased☐ Metal Suspension☐ Metal Arch☐ Metal Cantilever☒ Concrete☐ Concrete Arch ☐ Concrete Slab ☒ Concrete Beam ☐ Rigid Frame☐ Other Type Name ☐

**MARYLAND INVENTORY OF HISTORIC PROPERTIES
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION
MARYLAND HISTORICAL TRUST**

HA-1861
MHT NO. HA-1862

DESCRIPTION

Describe the Setting:

Bridge # 12008 carries ND 7, also known as Old Philadelphia Road, over Gray's Run near Aberdeen. This area falls near the northern border of Maryland's Tidewater or Coastal Plain physiographic region. MD 7 runs in a generally southwest to northeast direction at this point. Bridge # 12008 is situated between I-95 and US Route 40.

**Describe the Superstructure and Substructure:
(Discuss points identified in Context Addendum, Section C)**

Bridge # 12008 carries two lanes of traffic over Gray's Run. Built in 1925, the structure is a concrete girder bridge consisting of a single span measuring 28' +/- with a clear roadway width of 24' and a total length of 29'-5". A 1924 design standard was assumed. The bridge is comprised of a concrete slab integral with the concrete beams, plain concrete abutments and wingwalls, and incised concrete parapets which are integral with the bridge. A geodetic survey marker, located in the top of the north parapet, is imprinted with a date of 1959. The concrete abutments and wingwalls bear no additional ornamentation. Guard rails have been placed at the sides of both approaches to the bridge.

The earliest inspection report located, dating to 1932, notes a crack in one of the wingwalls. Inspection reports dating from 1976 through 1980 cite a crack in one wingwall and spalling of one of the abutments.

A survey of historic concrete beam bridges undertaken by the Maryland State Highway Administration in the Fall of 1995 identified 113 bridges of that type located throughout the state. Slightly more than two-thirds (76) of that total were single-span bridges.

Discuss major alterations:

In 1988, the parapet on the southeast corner was hit by a vehicle and subsequently repaired. Reports from 1989 note repairs consisting of underpinning the west abutment and cracked wingwall. During that same year stream channel protection with Class I riprap was provided to protect the bridge against severe scour problems. Drawings from 1989 show alterations to the superstructure and substructure involving repairing scour at abutments, repairing the exterior concrete girders, and sealing and repairing cracks in the northeast wingwall.

**MARYLAND INVENTORY OF HISTORIC PROPERTIES
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION
MARYLAND HISTORICAL TRUST**

HA-1861
MHT NO. HA-1862

HISTORY

When Built: 1925

Why Built: Statewide road improvement programs and local transportation needs

Who Built: State Roads Commission, contract #H 39

Who Designed: Unknown; assumed design based on then-current SRC and AASHO specifications

Why Altered: The bridge was altered to repair vehicle accident damage to one parapet wall as well as to correct scour problems and underpin the west abutment and wingwall.

Was this bridge built as part of an organized bridge building campaign?: No

SURVEYOR ANALYSIS

This bridge may have NR significance for association with:

☐ A (Events) ☐ B (Person) ☐ C (Engineering/Architectural Character)

Was this bridge constructed in response to significant events in Maryland or local history?

Road improvements in Harford County were fueled by several events occurring during the early twentieth century. First, the Good Roads Movement, which began in the last decade of the nineteenth century, aimed to improve primary roads throughout the state as well as multiple connecting roads between counties. As the movement progressed, numerous existing roads were widened, straightened, or graded, and many new bridges were built to carry the rebuilt roads. Second, rapidly increasing automobile, truck, and bus traffic also fueled the replacement of existing narrow and weak bridges with wider and stronger concrete structures, many of which were built according to standardized specifications and plans developed by the State Roads Commission (SRC). Third, the State Roads Commission established district engineering offices during the 1910s to aid in intrastate road development, and established a separate bridge department in 1920. This fostered construction of many concrete bridges throughout the state. In the 1920s, the SRC emphasized improving the safety and comfort of primary routes while developing secondary networks and feeder roads. By the 1930s, bridges that were originally deemed adequate had become unacceptable for carrying modern traffic loads and many new structures were built as a result.

When the bridge was built, and/or given a major alteration, did it have a significant impact on the growth and development of the area?

Bridge #12008 participated in the general trend toward upgrading state roads and bridges and improving intrastate access.

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Is the bridge located in an area which may be eligible for historic designation, and would the bridge add or detract from the historic and visual character of the possible district?

No, the bridge is not located in an area which is eligible for historic designation.

Is the bridge a significant example of its type?

No, this structure is not a significant example of its type. The character-defining elements have either been repaired or exist in somewhat deteriorated condition.

Does the bridge retain integrity of the important elements described in the Context Addendum?

No, the bridge does not retain integrity of the primary character-defining elements of a concrete beam bridge. The character-defining elements for the superstructures of concrete beam bridges are the slab, the longitudinal beams, and the parapet or railing when integral. For the substructure, the character-defining elements are the abutments, piers, and wing walls. One parapet wall was repaired in 1988 and repairs to the superstructure and the substructure were executed in 1989.

Is the bridge a significant example of the work of the manufacturer, designer, and/or engineer, and why?

No, this structure is not a significant example of the work of the State Roads Commission.

Should this bridge be given further study before significance analysis is made, and why?

No, this structure should not be given further study. Previous alterations place its integrity in doubt.

MARYLAND INVENTORY OF HISTORIC PROPERTIES
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION
MARYLAND HISTORICAL TRUST

HA-1861
MHT NO. HA-1862

BIBLIOGRAPHY

Spero, P.A. C. & Company and Louis Berger & Associates
1994 *Historic Bridges in Maryland: Historic Context Report.*
Maryland State Highway Administration, Baltimore.

State Highway Administration
Bridge Inspection Reports. On file 707 North Calvert Street, Baltimore.

As-Built Drawings. On file 707 North Calvert Street, Baltimore.

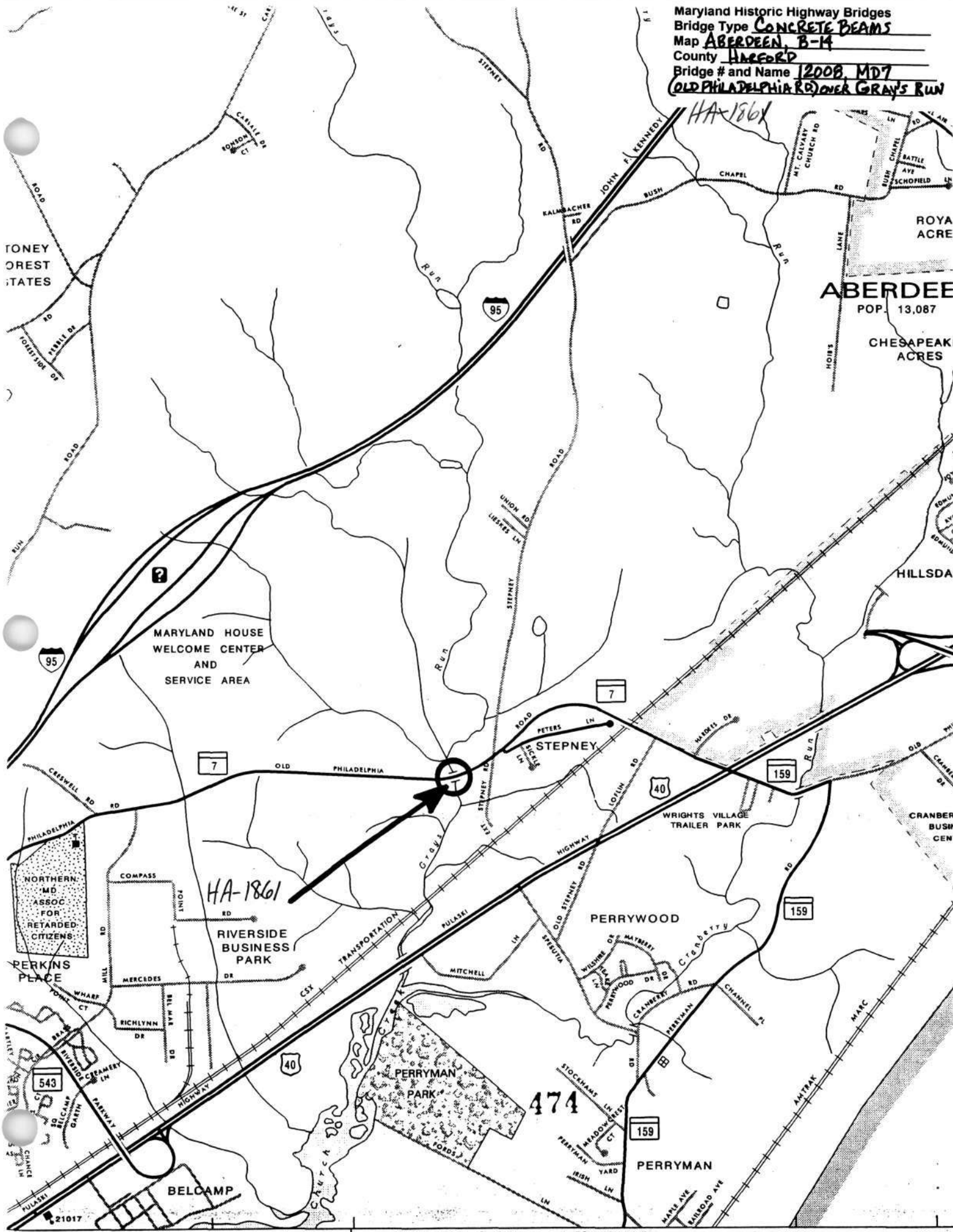
State Roads Commission of Maryland
1958 *A History of Road Building in Maryland.* Baltimore.

SURVEYOR INFORMATION

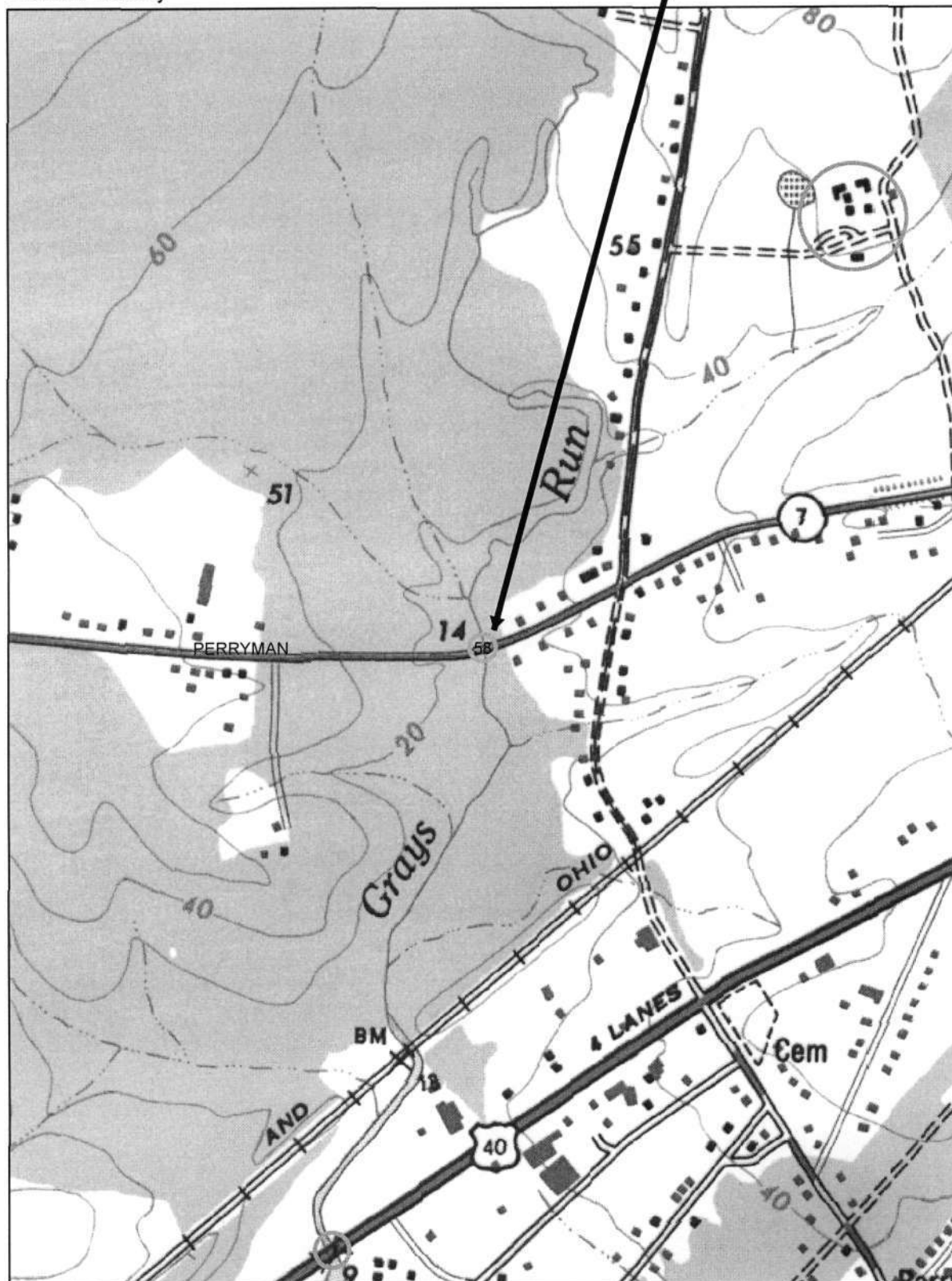
Name: Gabrielle M. Lanier
Organization: KCI Technologies, Inc.
Address: 5001 Louise Dr., Suite 201
Mechanicsburg, PA 17055

Date: 13 May 1996
Telephone: (717) 691-1340

Maryland Historic Highway Bridges
Bridge Type CONCRETE BEAMS
Map ABERDEEN, B-14
County HARFORD
Bridge # and Name 12008, MD7
(OLD PHILADELPHIA RD) OVER GRAY'S RUN



HA-1861
Bridge No. 1200800
MD 7 over Grady's Run
Aberdeen
Aberdeen Quad
Harford County





HA-1861

HARFORD COUNTY, MD

JOHN TARQUINIO

26 JAN 1995

~~MARYLAND SHPO~~ SHHA

- BRIDGE NO. 12008 OVER
GRAYS RUN
- VIEW LOOKING EAST ON
MD ROUTE 7

1/5



HA-1861

HARFORD COUNTY, MD

JOHN TARQUINIO

26 JAN 1995

~~MARYLAND SHIP~~ SMA

- BRIDGE NO. 12008 OVER
GRAYS RUN
- VIEW LOOKING WEST ON
MD ROUTE 7

2/5



HA- 1861

HARFORD COUNTY, MD

JOHN TARQUINIO

26 JAN 1995

~~MARYLAND SHPO~~ SHA

- BRIDGE NO. 12008 OVER GRAY'S RUN
- VIEW LOOKING SOUTH

3/5



HA-1861-

HARFORD COUNTY, MD

JOHN TARQUINIO

26 JAN 1995

~~MARYLAND SHPO~~ SHA

- BRIDGE NO. 12008 OVER GRAY'S RUN
- VIEW LOOKING NORTH

4/5



HA-1861

HARFORD COUNTY, MD

JOHN TARQUINIO

26 JAN 1995

MARYLAND SHPO SHA

- BRIDGE NO. 12008 OVER GRAY'S RUN
- VIEW OF GEODETIC SURVEY MARKER
ON TOP OF NORTH PARAPET

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